

ATTORNEY DOCKET NO.
064977.0133

PATENT
10/075,577

2

Specification

Please amend the specification as follows:

On pages 13-14, paragraph "[00051],"

[00051] FIGURE 4 illustrates the flow diagram of the subject invention employing both the azeotropic distillation, with entrainers to form azeotropes and a steam generation/heat recovery system in the dehydration section of the terephthalic acid plant. The present invention further improves azeotropic distillation systems by generating steam during the separation of acetic acid from water in the distillation phase of terephthalic acid production. Isobutyl acetate (IBA) or normal butyl acetate (NBA) or their mixtures is used as an entrainer in the acetic acid dehydration column. The column has an overhead operating pressure which is greater than ambient pressure. Preferably, the column has an overhead operating pressure of 1.3 kg/cm² abs. or higher. ~~The column has an overhead operating pressure of 1.3 kg/cm² abs. or higher.~~ A steam generation system is located on top of the dehydration column to recover the steam energy by condensing the overhead vapor column. The steam is a low pressure steam of about 0.6 - 2.0 kg/cm² abs. Acetic acid is recovered from the system in the amount of 300-800 ppm.